In the Claims:

Please amend claim 9, 12, 14, 15, 20, 21, 25, and 26 as follows:

9. (Amended) An alignment process as claimed in claim 1, further comprising:
optically inserting a camera into an optical link of the optical system;
generating an image of the lens, and
translating the lens relative to the optical system in response to the image.

12. (Amended) An alignment system for an optical system comprising a lens and a tunable filter element, the alignment system comprising:
an optical signal source;
an optical signal detector for detecting back-reflections from the optical system;
a reflective element in the optical system that produces the back-reflections; and
a manipulation system for moving the lens and tunable filter element relative to each other in response to the back-reflections.

14. (Amended) An alignment system as claimed in claim 12, wherein the reflective element is insertable such that it is orthogonal to an axis of the optical system.

15. (Amended) An alignment system for an optical system comprising a lens and a tunable filter element, the alignment system comprising:
an optical signal source;
an optical signal detector for detecting back-reflections from the optical system;
camera that detects an optical signal that is transmitted through at least part of the optical system; and
a manipulation system for moving the lens and tunable filter relative to each other in response to an image detected by the camera.

20. (Amended) An alignment process as claimed in claim 16, further comprising:

exciting the optical train with a signal via an optical fiber;

detecting a ratio between two optical modes in a signal from the optical system; and

aligning the system to minimize the ratio.

21. (Amended) An alignment process for a fiber optic system including at least two lenses and a tunable filter element, the process comprising:

transmitting an optical signal into the system;

optically inserting a camera into an optical link of the optical system;

generating an image of a first lens,

translating optical elements of the fiber optic system in response to the image of the first lens;

generating an image of a second lens, and

translating optical elements of the fiber optic system in response to the image of the second lens.

25. (Amended) An alignment process as claimed in claim 21, further comprising:

exciting the optical train with a signal via an optical fiber;

detecting a ratio between two optical modes in a signal from the optical system; and

aligning the system to minimize the ratio.

26. (Amended) An alignment system for an optical system comprising a lens and a tunable filter element, the process comprising:

attaching a fiber pigtail to the system;

transmitting a broadband signal through the optical system; and

positioning an endface of the fiber relative to the tunable filter in response to a ratio between a lower order mode and a next higher order mode of the tunable filter element.

Please add additional claims 27 through 47:

27. (new) An alignment process for a tunable filter optical train of a fiber optic system, the process comprising:

transmitting an optical signal into the optical train, which comprises an optical fiber, a lens, and a MEMS tunable filter that are attached to a bench;

detecting the optical signal after transmission through at least part of the optical train; and

moving the lens, the MEMS tunable filter, and/or an endface of the optical fiber of the optical train in response to the detected optical signal to improve an alignment of the optical train.

28. (new) An alignment process as claimed in claim 27, wherein the step of detecting the optical signal comprises detecting a back-reflection from the MEMS tunable filter.

29. (new) An alignment process as claimed in claim 27, wherein the step of detecting the optical signal comprises detecting the optical after transmission through the tunable filter.

30. (new) An alignment process as claimed in claim 27, wherein the step of transmitting the optical signal into the optical train comprises transmitting the optical signal via the optical fiber endface.

31. (new) An alignment process as claimed in claim 27, further comprising inserting a mirror optically into the optical train.

32. (new) An alignment process as claimed in claim 31, further comprising transmitting an optical signal into the optical train via the optical fiber endface while detecting back reflections from the mirror.

33. (new) An alignment process as claimed in claim 27, further comprising translating a second lens in the optical train relative to the bench in response to the detected optical signal.

34. (new) An alignment process as claimed in claim 27, further comprising:
coating the filter to be reflective at a predetermined wavelength; and
tuning the optical signal to the predetermined wavelength.

35. (new) An alignment process as claimed in claim 27, wherein the step of detecting the optical signal comprises detecting the optical signal after transmission through the tunable filter.

36. (new) An alignment process as claimed in claim 35, further comprising detecting a ratio between two optical modes of the tunable filter.

37. (new) A fiber optic alignment system for an optical train comprising at least a lens and a tunable filter, the system comprising:
an optical signal source;
an optical signal detector for detecting the optical signal after transmission through at least part of the optical train; and
a manipulation system for moving the lens and the tunable filter in response to the optical signal detector.

38. (new) An alignment system as claimed in claim 37, further comprising a reflective element in an optical link that produces back-reflections that are detected by the optical signal detector.

39. (new) An alignment system as claimed in claim 38, wherein the reflective element is insertable such that it is orthogonal to an axis of an optical path of the optical system.

40. (new) An alignment system as claimed in claim 37, wherein the optical signal source that emits radiation at a frequency not coinciding with a resonant peak of the tunable filter element.

41. (new) An alignment system as claimed in claim 37, wherein the optical signal detector comprises a camera for detecting the optical signal.

42. (new) An alignment system as claimed in claim 37, wherein the camera generates an image of the lens.

43. (new) An alignment system as claimed in claim 37, wherein the optical signal source generates an optical signal that covers a passband of the tunable filter.

44. (new) An alignment system as claimed in claim 37, wherein the manipulation system moves a second lens of the optical train relative to the lens and the tunable filter in response to the detected optical signal.

45. (new) An alignment system as claimed in claim 37, wherein the optical signal source transmits the optical signal backwards though the optical train.

46. (new) An alignment system as claimed in claim 37, wherein the optical signal is transmitted though an endface of the fiber between the optical signal source and the optical signal detector.

47. (new) An alignment system as claimed in claim 37, wherein the manipulation system moves the lens and tunable filter relative to each other in response to a spectral response of the tunable filter.